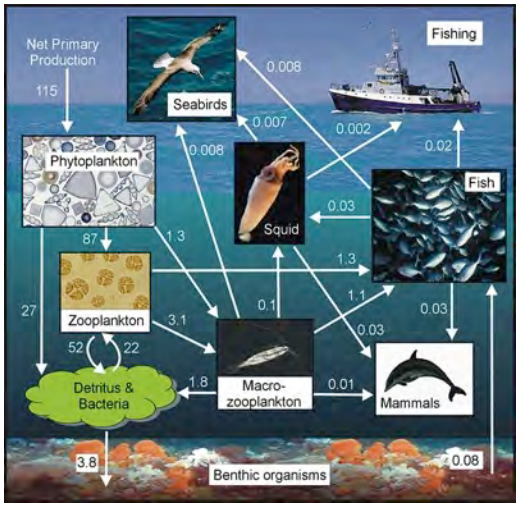
Natural Resource Assessment, Integrated Ecosystem Assessment, and Essential Fish Habitat Review

Information item: NRA, IEA, EFH-

- what are they
- what's their status
- how we will use the products



Paul Michel & Andrew DeVogelaere
Monterey Bay National Marine Sanctuary
SAC meeting, 16 August, 2012

Natural Resource Assessment: What is it?

The Natural Resources of Monterey Bay National Marine Sanctuary:

A Focus on Federal Waters

Draft Report
August 2012

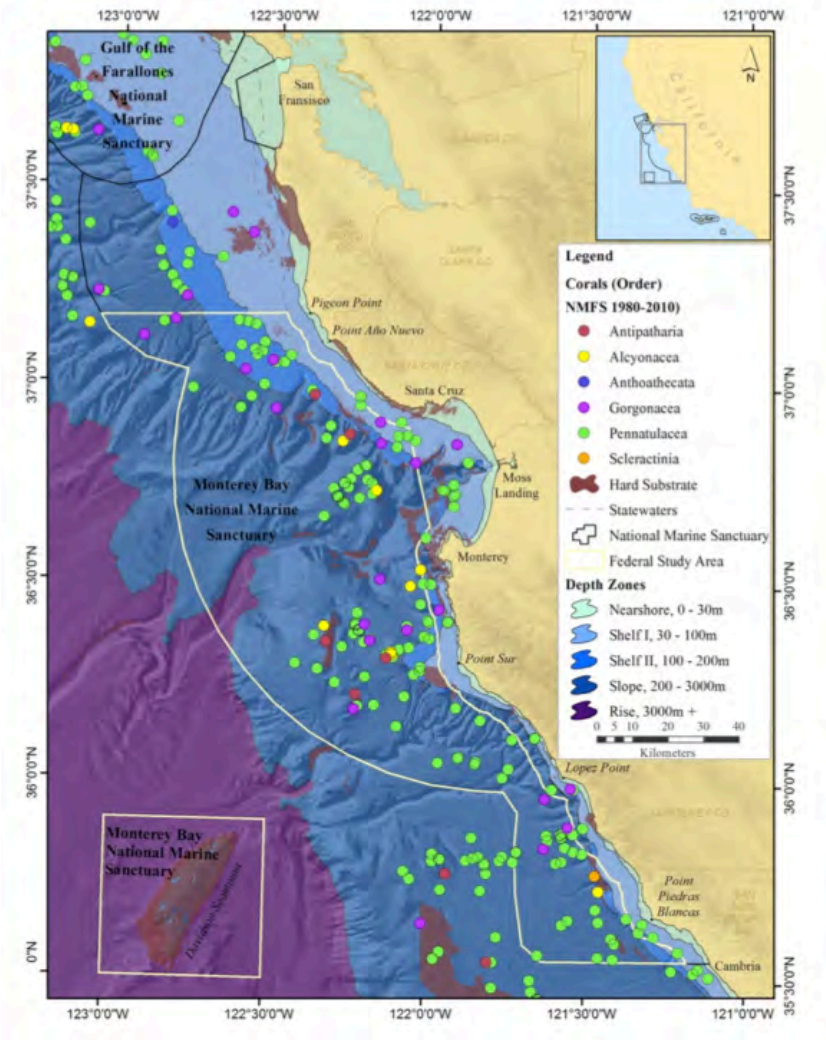
National Marine Sanctuaries mandated to:

"Maintain for future generations the habitat and ecological services of the natural assemblages of living resources that inhabit these areas"

- MBNMS Site Characterization, 1996
- Update information on federal waters (> 3 mi)

- Shelf (30 – 100m; & 100 – 200 m)- soft
- Shelf (30 – 100m; & 100 – 200 m)- hard
- Slope (200 – 3,000 m)- soft substrate
- Slope (200 – 3,000 m)- hard substrate
- Rise (> 3,000 m)
- Open water
- Submarine Canyon
- Seamount
- Oxygen Minimum Zone
- Chemosynthetic Biological Communities
- Macrophyte Detritius

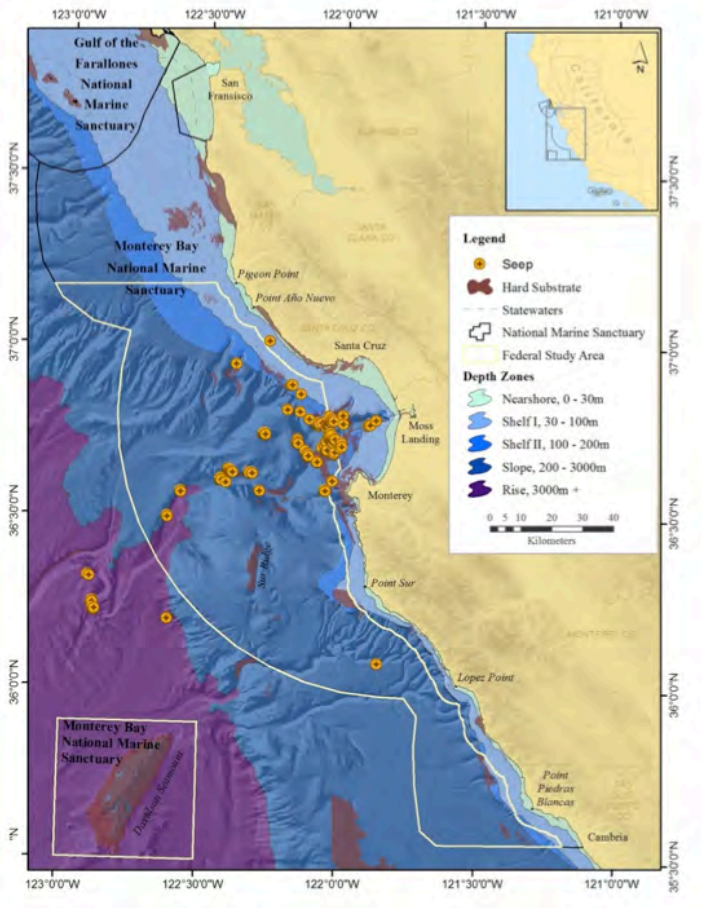
Natural Resource Assessment: Status



- 267 Pages
- 213 Citations
- 27 Figures
- 23 Tables

- Has been submitted for publication in the Marine Sanctuaries Conservation Series

Natural Resource Assessment: How will it be used?



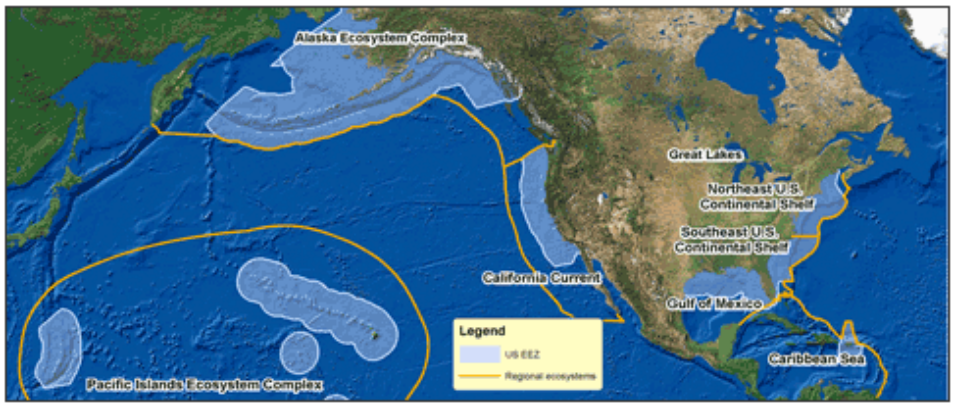
- Inform expected management decisions:
  - submerged cables
  - offshore aquaculture
  - green energy development
  - whale strikes
  - EFH process
  - and more…
- Inform education exhibit development
- Inform next MBNMS Condition Report and the IEA

Integrated Ecosystem Assessment: What is it?

Integrated Ecosystem Assessment (IEA) :

"A synthesis and quantitative analysis of information on relevant physical, chemical, ecological and human processes in relation to specified ecosystem management objectives".

- Assessment of ecosystem baseline conditions (States)
- Assessment of stressors on the ecosystem (Drivers, Pressures)
- Prediction of the ecosystem status with no change in management actions (status quo response)
- Prediction of the ecosystem status under different management strategies to meet target states (optional responses)
- Evaluation of the success of management actions (update states relative to targets and thresholds)



Integrated Ecosystem Assessment: Status

- MBNMS is serving as a pilot management location
- Development of management priorities
- Location of relevant datasets (SIMoN)
- Expert risk assessment survey completed (RAP as core)
- California Current Ecosystem IEA web site development
  August 15, draft chapter on scoping process completed
- Literature review completed in September
- CC IEA education video completed in September
- IEA 2012 report completed in September (good place for more info.)
- Coordination at a national level
  September 5 – 7, Second Annual NOAA IEA Program meeting
- Integrated perspective on interviews and literature in November
- Management strategy evaluation

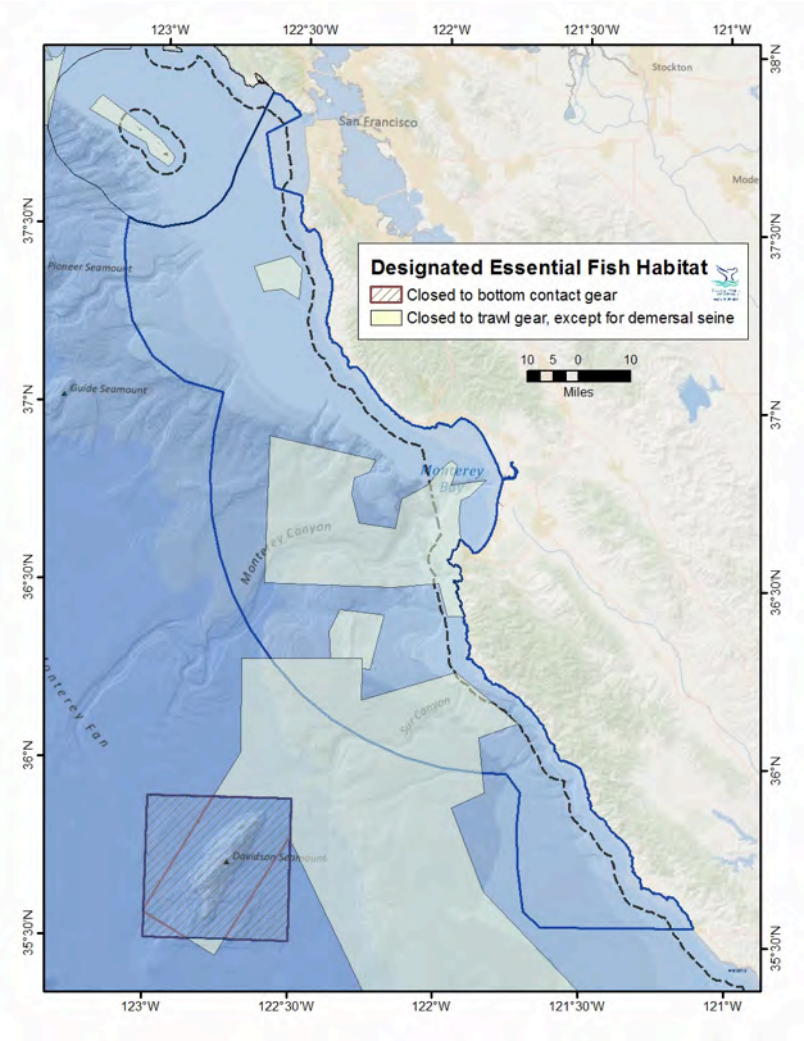
Integrated Ecosystem Assessment: How will it be used?

- IEAs are intended to involve and inform citizens, industry representatives, scientists, resource managers, policy makers about key ecosystem components and pressures.

- A key aim of an IEA is to provide an efficient, transparent means of summarizing the status of ecosystem components, screening and prioritizing potential risks, and evaluating alternative management strategies against a backdrop of environmental conditions.

- With this information stakeholders, involved in making management decisions will have a better idea of how management decisions may impact the ecosystem and those who rely on it.

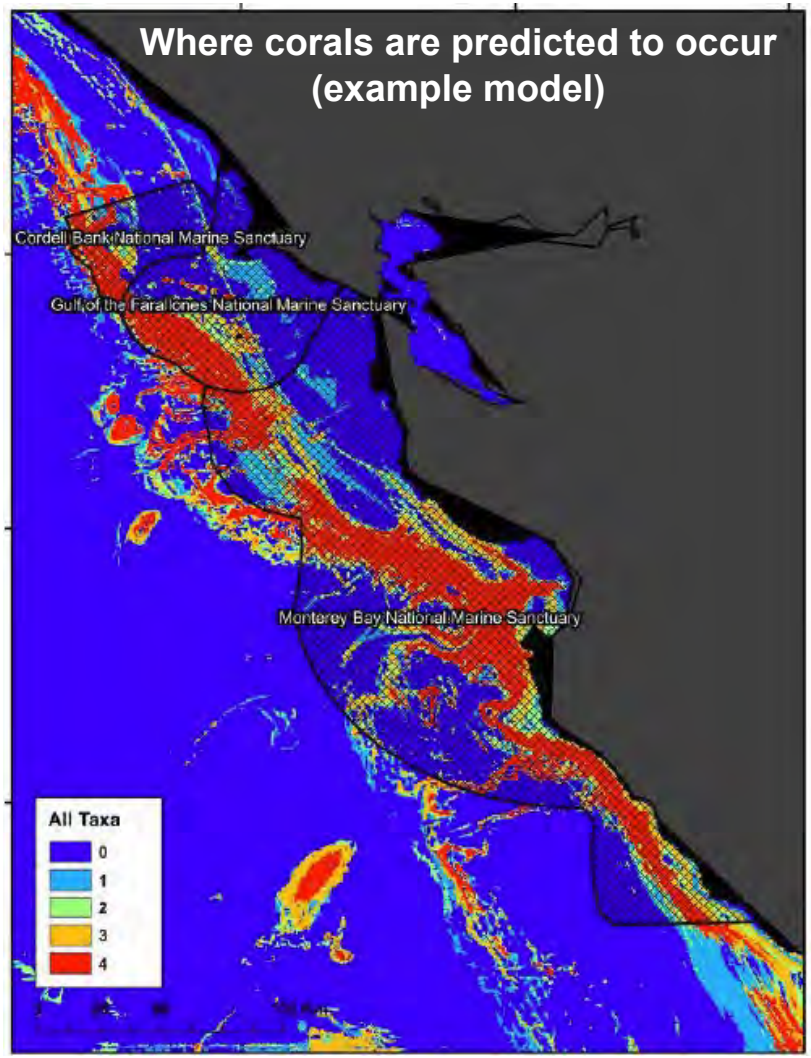
Essential Fish Habitat (EFH) Review: What is it?



- NMFS/PFMC amended the Pacific Coast Groundfish Mgmt Plan in 2005 to:
  - Describe EFH: "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity"
  - Designate certain habitats and areas with EFH protections
  - Minimize adverse impacts from bottom contact fishing

- NMFS/PFMC has initiated a review of the current EFH boundaries
  - An opportunity for local refinement of boundaries based on local knowledge/info and needs

Essential Fish Habitat Review: Status



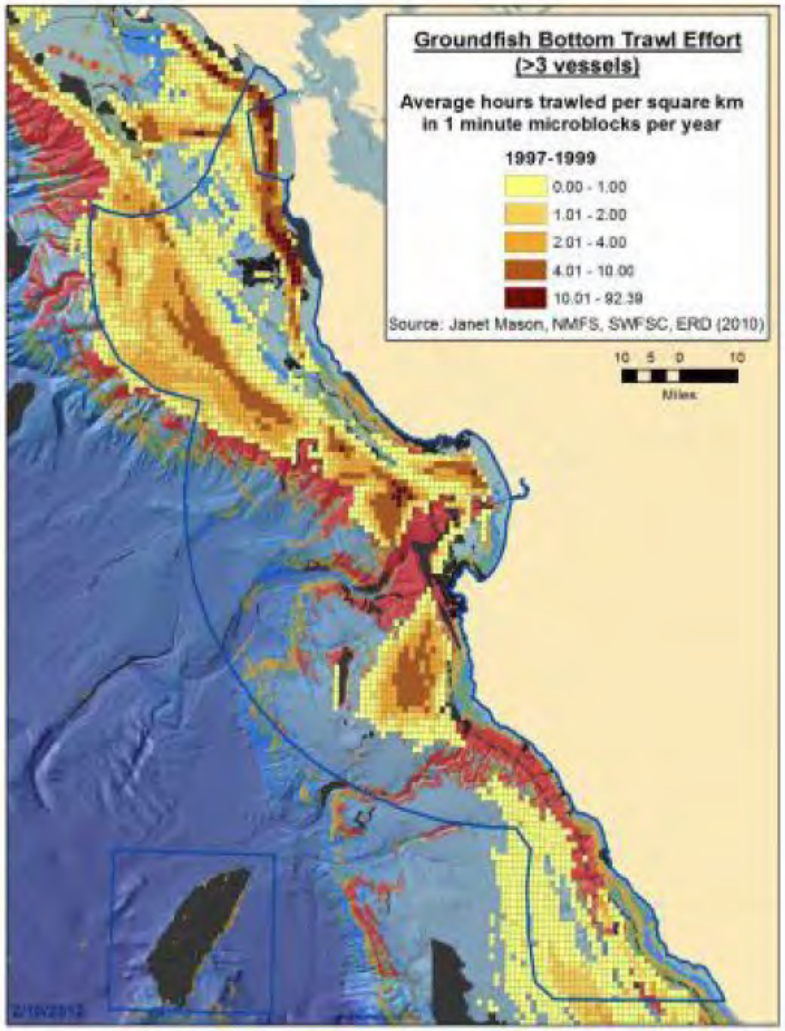
MBNMS is:

- Identifying & analyzing coral, sponge, hard substrate data layers, other info, and models

- Identifying "Ecologically Significant Areas" (ESAs)

- Meeting with members of the trawl fleet and NGOs to better understand issues and opportunities

Essential Fish Habitat Review: How will it be used?



MBNMS seeks to:

- Inform PFMC - EFH Review Process

- Use ESAs and local input to draft an EFH proposal for submittal to PFMC

- Use ESAs to identify areas for focused research and monitoring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